INDIAN BABY NUMBER

THE RED MAN

An Illustrated Magazine Printed by Indians

MARCH 1916

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Save Your Baby.

DO YOU know that over one-fourth of all babies die before they are one year old?

Do you know that one-fifth of these deaths happen in July?

Hot weather alone does not kill babies. Death comes most frequently from the effect of hot weather upon the *food which they eat.*

Remember, there is no better food for babies than *mother's milk.* If you can, *nurse your baby*—not oftener than once in two hours; when the baby is over three months old, every two and a half hours; when five months, every three hours.

Give the baby all the cool, *boiled* water it wants. Boil the water for twenty minutes. Let it cool in a covered jar. Never leave the water uncovered. A quart fruit-jar will hold enough for a day's supply. Have it fresh every day.

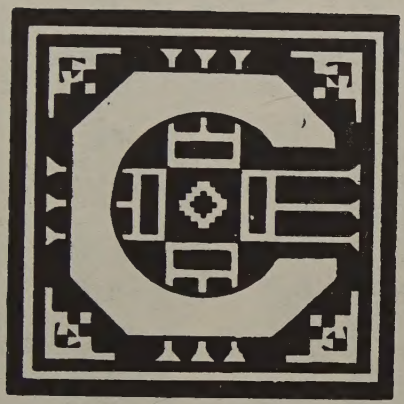
Babies often cry because they are thirsty, or because they are getting too much food, or because they are hot. Dress the baby in as few things as possible on hot days. A little band of cotton and wool to absorb the perspiration, a petticoat, and a thin dress are enough. On hot days leave off the dress. See that the legs and arms are left free to the air.

Do not wean the baby unless the doctor orders it, and follow his advice regarding the preparation of the milk for the bottle baby. Do not feed it coffee, syrups, or solid food.

Provide the best and cleanest milk you can get. See that it is always kept covered and cool.

Teething is a natural thing for a baby, and will not make it sick if it is properly fed and kept clean. Teething is not harder in summer than in winter. The second summer need be no worse than the first summer.

Bathe the baby in cool water at least once a day in hot weather. If it has been perspiring, dry carefully before bathing. If it has *prickly heat* put a teaspoonful of bicarbonate of soda in the bath. Babies with prickly heat may have been dressed or covered too warmly.



A magazine issued in the interest of the Native American

The Red Man

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OSCAR H. LIPPS, Superintendent.

BABY STRIKE AXE—*Tribe, Osage*

LITTLE "ALL-TIME-EATS" AND OTHER INDIAN BABIES

THE RED MAN

Save the Indian Babies:*

By Hon. Cato Sells, Commissioner of Indian Affairs.

IN AN address before the Congress on Indian Progress held in San Francisco in August of last year I said:

"It is our chief duty to protect the Indian's health and to save him from premature death. Before we educate him, before we conserve his property, we should save his life. If he is to be perpetuated, we must care for the children. We must stop the tendency of the Indian to diminish in number, and restore a condition that will insure his increase. Every Indian hospital bed not necessarily occupied with those suffering from disease or injury should be available for the mother in childbirth. It is of first importance that we begin by reestablishing the health and constitution of Indian children. Education and protection of property are highly important, but everything is secondary to the basic condition which makes for the perpetuation of the race."

That thought has deepened its hold upon my convictions.

We must guarantee to the Indian the first of inalienable rights—the right to live. No race was ever created for utter extinction. The chief concern of all ethics and all science and all philosophies is life.

The Indian has demonstrated his humanity and his capacity for intellectual and moral progress amid conditions not always propitious and I am eager to participate with all the favoring forces that contribute to his racial triumph, believing as I do that when he comes to himself as a factor

*Letter addressed to superintendents and other employees of the United States Indian Service, January 10, 1916.

in the modern world his achievements will enrich and brighten the civilization of his native land.

I should like to get the feeling I have upon this question into the conscience and aspirations of every Indian Service employee until there shall prevail a sort of righteous passion to see that every Indian child has a fair chance to live.

There is something fundamental here:

We cannot solve the Indian problem without Indians. We cannot educate their children unless they are kept alive.

All our Indian schools, reservations, individual allotments, and accumulated incomes tend pathetically towards a wasted altruism if maintained and conserved for a withering, decadent people.

If we have an Indian policy worthy of the name, its goal must be an enduring and sturdy race, true to the noblest of its original instincts and virtues and loyally sympathetic with our social and national life; a body of efficient citizens blending their unique poise and powers with the keen and sleepless vigor of the white man.

We must, therefore, renew daily our warfare against the arch foe of efficiency—disease.

We must begin at the right place—not only with the infant at its mother's breast, but with the unborn generation.

The new campaign for Health in which I would enlist you is first of all to Save the Babies!

Statistics startle us with the fact that approximately three-fifths of the Indian infants die before the age of five years.

Of what use to this mournful mortality are our splendidly equipped schools?

I earnestly call upon every Indian Bureau employee to help reduce this frightful percentage! Superintendents, Teachers, Physicians, Matrons, Nurses, everyone can do something by instruction or example, the physician with his science, the nurse with her trained skill, the matron with her motherly solicitude, all of us by personal hygiene, cleanliness, and sobriety.

With this idea uppermost, all employees whose duties

bring them in touch with Indian families must work in closest harmony for surrounding the expectant Indian mother with favorable health conditions before and after child-birth. The sanitation of the home of such women should have special attention and no baby allowed to be born into an environment germinating disease, if prevention is available.

The simplest rules of motherhood applied under intelligent and friendly direction would save most of the Indian babies who annually fill untimely graves.

I want to send this safety, as far as possible, into every home of an Indian mother, whether that home be a tepee, a tent, a log house with dirt floors or a more comfortable abode.

This means work, hard work, but the reward will be living souls.

I shall expect each Superintendent to acquaint himself with the home conditions of every Indian family on the reservation and to adopt practical and effective means for quick and certain improvement.

Superintendents must organize such a sytem of cooperative information through their employees as will enable them to do this, exercising, of course, great care and discretion in gathering the requisite information.

I shall consider, on the Superintendent's recommendation, a reasonable use of individual Indian moneys for the improvement of insanitary homes, where the family has such funds. In the absence of such moneys, every effort must be made to secure clean and wholesome conditions through the efforts of the adult members of the family. If there are no members physically able to labor, expenditure may be recommended from the funds, "Relieving Distress and Prevention, etc., of Disease Among Indians."

The crux of the matter is this: We must, if possible, get rid of the intolerable conditions that infest some of the Indian homes on the reservation, creating an atmosphere of death instead of life.

It will be the duty of the field matron to learn of conditions existing in Indian homes and of cases requiring medical

attention and report them to the Superintendent. It will be her duty to see that the prospective mother knows what equipment is necessary for the proper care of her new-born babe, and the importance of the provision which the husband should make for the health and comfort of the mother and child should be early and urgently impressed upon him.

Physicians must be promptly advised of all cases of prospective motherhood and they must see that proper attention is given before and after that event, arranging, if practicable, for hospital facilities where the home surroundings are unfavorable. Special effort should be made to see that the mother has nourishing food before and following child-birth.

I am advised that the death rate among Indian babies is most excessive after the nursing period when, through ignorance or carelessness, they are given improper food, such as green fruits, melons or corn, made further harmful perhaps by the presence of flies, and from the use of which intestinal disorders are almost sure to follow.

There should be vigilant and unrelenting effort to impress upon parents the great importance of supplying food which will furnish proper nourishment for the growing child. There should be constant endeavor to educate parents to an understanding of the value of a sufficient supply of cow's or goat's milk, or condensed milk, pure water, and suitable solid food, and to the necessity of maintaining cleanliness of person, cooking utensils, and other articles of domestic use.

It would be worth while, it would be great, if we could lift the Indian out of his uninformed condition and to induce him to see that the natural and beautiful love he has for his children will not keep them alive and well and joyous unless supplemented by a rational use of food, clothing, fresh air, and pure water!

If government aid is necessary to bring health out of disease and squalor, it should not be withheld, but good results if obtained will scarcely continue unless the Indian parents exchange indolence for industry and are awakened to the use and beauty of personal and environing cleanliness.

This campaign for better babies, for the rescue of a race, calls for redoubled energy and zeal throughout the Service, for it means personal work and tireless patience. It is a well-nigh stupendous task, but it will be a glorious one if we can make successful headway.

I believe that the high aspirations and missionary spirit generally prevailing among our field employees are a guaranty of substantial and lasting achievements, and I hope and believe we shall have quickened cooperation of all denominational agencies, religious missionaries and mission schools having special interest in the Indians' spiritual welfare and whose priceless labors, luminant with self-sacrifice and religious fervor, have done so much for the red man. We shall all, I am sure, exert an irresistible union of effort.

The educational propaganda against disease must, of course, be steadily increased and strengthened. Our Indian schools, where so many of the rising generations are assembled, are well organized and should be a mighty instrumentality for health and higher ideals of life. In their education of girls I hope to see added emphasis given to such subjects as home nursing, child welfare and motherhood, the sanitation, arrangement, and management of the home, and that nothing reasonable shall be spared to fit every Indian girl for intelligent housekeeping and for attractive home-making.

There is among the Indians a marked and tender affection for their children, but too often the wife, the mother, is regarded and treated as the burden bearer. I wish we might see this habit overcome, for it is distinctly barbaric. I want to see developed and prevalent in every Indian school from the least to the largest that modern and truly chivalrous spirit that recognizes and respects the sacredness of womanhood. I should like to have every Indian boy leave school with this lofty and just sentiment fused into his character as the picture in the porcelain, because of the deep and exquisite power it will have to bless his future home with health and happiness.

While, therefore, this appeal aims primarily at the safety

and health of the child and is intended to enforce the thought that the future of the Indian race may depend vitally upon what we shall be able to accomplish for its new generation, it is also a message of reenforcement to every utterance and every effort expressed or put forth within the Indian Service in behalf of the adult against tuberculosis, trachoma, and every other disease; against the liquor curse and the use of any kind of enervating drug or dope. I look to the schools chiefly to safeguard the boys and girls enrolled there against these deadly scourges, and there must be no abatement but rather renewed and continued energies in this direction.

In closing, I ask every employee to do his or her part in widening our work against disease until our Indian reservations become the home of healthy, happy, bright-eyed children with a fair start in life and our schools become impregnable defenses against every enemy to healthy and high-minded boys and girls.

By Dr. W. K. Callahan.

INDIAN babies commonly come into the world well endowed physically. But old Indian customs of carelessness and filth are responsible for many subsequent ills. Here it is the custom for the prospective mother to hie herself away from the family domicile at the time of her baby's birth and to remain away until the puripuiem is ended. She usually goes a short distance away and erects herself a small tent or wicke-up and in this small place, usually four by four, her baby is born.

The child is usually wrapped up in an old blanket for the first two or three weeks of its life and it is not bathed until the mother is able to bathe it herself. When attending these births I receive the baby

and examine it for physical defects, after which I dress the cord, then anoint the infant with olive oil, wash out its mouth, and cleanse the eyes thoroughly, dropping a few drops of silver nitrate solution into the eyes last. Then the baby is bathed and dressed. A dose of ten drops of castor oil with one drop of turpentine completes the program as far as baby is concerned.

Examination of the mother's breasts are made, and I encourage all mothers to nurse their babies unless there are grave reasons to the contrary. Should the baby be bottle fed, the personal attention of the physician as to the proper modification of the cow's milk is of prime importance. The condition of the milk as it is received should be carefully noted and urgent insistence made upon its being free from dirt and all foreign matter. The condition of the bottles should be carefully inspected, for in this matter I find the main causes of infantile stomach and bowel disorders.

The attention of field matrons and others having to do with the Indian family in its home is respectfully invited in this matter of milking and the care of milk. I know of no other detail in Indian family life that is more neglected and it would give a greater return for the time and attention given it. A notable decrease in infant Indian mortality would not be the least of objects attained.

Indian mothers should be instructed over and over again in the proper care of their babies, for I find them neglectful in every hygienic principle. They should be told to frequently afford the child a change of napkins, as many cases of capillary bronchitis and pneumonia I find directly chargeable to neglect of this feature. They should be given personal instruction in the bathing and proper dressing of their children during the colder months. Especially during this season also I find the majority of ear troubles have their beginning, and the mother should be taught to bring her children to the physician for examination where the baby cries persistently without visible cause. Night cries should also be investigated, for in them we find the first symptoms of tubercular joint disease. All swellings and other enlargements should be called to the attention of the physician and they should come when such swellings are first noticed.

The mothers should be taught to notice their childrens' eyes and cause the eyes to be washed out well each morning, and that no child having red or inflammed eyes should be allowed to use the family towel, but should be furnished an individual towel and made to use it until the eyes are well. These should be brought to the physician at once. The mothers need instruction upon the proper feeding of their children at weaning time, for at this period the greatest mortality occurs. They should be taught that milk fresh and sweet is the only proper diet for the children at this period, and if this point is firmly impressed we shall have many lives saved and many more happy Indian babies.

By Dr. Charles L. Zimmerman, Ponca Agency, Okla.

THE first step in the instruction of the Indian mother as regards the health of her infant has been in my experience that of "Proper Feeding." With this important function of every-day life properly regulated and controlled, the majority of infant disorders will disappear and the naturally splendid digestive system assume its proper place.

For the very young infant the mother's breast is the best of all foods. Cow's milk is excellent for calves but not so good for babies. Condensed milk is in its proper place when it is in the can. Indigestible, poorly prepared, and uncooked food from the table too often form a large portion of the daily food of the Indian, and it is to correct this method of feeding that one must devote a large portion of his time, if results long desired are to be realized.

The eating of candy by children of tender years is another of the causes of much infantile digestive disturbances, and the sooner this cause of gastrointestinal disturbances is prohibited the better nourished and healthier will the baby be.

I have found that a diet of peptonized, milky, predigested food or barley water will often correct a case of severe diarrhea that has resisted medical treatment. The diarrhea of children divides itself into two heads, the simple and the infectious, and the mortality rate from these conditions is high.

Rickets is another disease which one finds quite common among the Indian children, due probably to patent baby foods and unhygienic conditions. Plenty of meat broth and fruit juice, and small amounts of starchy foods, such as potatoes, will restore it to health.

Another universal disease of children is tuberculosis, and when one considers that 99 per cent of all children of ten years of age in the white race are said to have tubercular implantation, then we can appreciate its danger and importance. Tuberculosis is not inherited. The most frequent type in children is the glandular form oftimes expressed after the system has been reduced by an attack of measles or whooping cough. The path of entrance is usually through the respiratory tract, by either the mouth or

the nose, and when we recognize this path of entrance then we should appreciate the importance of the toilet of the nose and mouth in a growing child when infected. We must instruct the mother of the value of preventive measures. Glandular involvement is usually the result of and a sequel of a previous disease, and we should endeavor to prevent a break in the mucus membrane, or if a break occurs to keep it in a sterilized and clean condition.

A child reared in a home containing an acute case of tuberculosis is continually breathing the infectious atmosphere. Forced feeding and a daily bath for these cases will do much to overcome an inherited weakened body.

By Brigett C. Keough, Field Matron, St. Xavier, Mont.

IN THE Big Horn Valley on the Crow Reservation the infant mortality during the past year was three, all 1914 babies, two of whom were very weak when born, and the other was deformed at birth. Of the twelve babies born during 1915, all have successfully resisted summer complaints and so far this winter have had no serious illness.

The Indian mothers are learning to take better care of their babies and there is a decided improvement in their methods of doing many things tending to the welfare of their children. While some still listen to the medicine woman or the old grandmother when the baby is sick, the majority come to the doctor for advice, and try to follow suggestions as to cleanliness and diet.

The Crow mother will not prepare a layette for her baby, as it is a superstition among them that the baby will die if its clothes are made before it is born. Many have come to learn that it is best for the baby to wear a band and some have bought shirts, but further than this, the baby is wrapped in the old-time way.

When we realize that the present Indian babies are but one generation in civilization, we readily see how much the Indian mother has to learn. By degrees they learn to do as suggested, and there is a gradual improve-

ment which will lessen the death rate among the Indian babies. If a movement in this direction is necessary and is being carried on among white people, how much more do the Indian mothers need aid and advice.

The pamphlets issued by the Children's Bureau, Department of Labor, contain valuable suggestions for those engaged in the work of helping the Indian mothers in saving their babies and also are of benefit to the Indian woman who can read. The Child Federation of Philadelphia issue a little booklet containing a résumé of its work and many useful hints. The literature issued by the Better Babies Bureau of the Woman's Home Companion, New York, and furnished gratis is most beneficial alike to welfare workers and mothers.

A Better Babies Health Exhibit was held during the annual Crow Fair, and much interest was manifested. Eighteen babies under one year were entered in the contest. The babies scoring highest averaged 97⅛, 97, and 94⅜, and were given prizes by the fair management. The Better Babies Bureau gave a bronze medal as first prize and certificates to the others. Such a contest may become a permanent feature of the Crow Fairs and will do much to help in the work of saving the babies.

By Mrs. Harry M. Carter, Field Matron, Ft. Yuma, Ariz.

REALIZING that the Indian babies of today are to be the Indian fathers and mothers of tomorrow, Commissioner Sells made an essential move when he began to agitate the question of saving the Indian babies. When we realize that one-half of all children born die before they reach the age of fourteen years, we are not surprised to know of the alarming mortality among Indian babies, who until recent years came into the world with only a primitive mother's instinct to guide their destiny.

To have an equal chance for life a child must be born physically strong, mentally vigorous, and morally clean; otherwise he will be a weakling handicaped by the scar of previous famine and disease.

Better babies! Better babies! The most favorite topic of discussion

for the press, pulpit, and lecture platform of the past few years more clearly shows what can be accomplished by these invaluable agencies of publicity. The efforts of all opinions combined, both professional and otherwise, have spread the knowledge to all parts of the world that better sanitation, better food, better care of the body, and more temperance in all things will do more to give health, strength, and longevity to the present and future generation than the combined medical skill of the universe.

Among no other race of people than the American Indian is this more true. Driven in years past—by the greed of the white man for his fertile lands—to the bleak and unproductive mountains, or the cactus and sage covered desert, to eke out a miserable existence in famine, filth, and squalor, it is not surprising that clothing, food, and whiskey offered by the soldier, prospector, or renegade white man—the only people with whom the Indian came in contact a generation or two ago—could be bartered for that which spread broadcast and indiscriminately among their people the most loathsome diseases to which the flesh of manhood is heir.

It certainly must be true that these diseases are what the prophets of old referred to when they said that the sins of the fathers are visited upon the children even to the third and fourth generation, for of nothing else is it more true than that the same scourge is visited on down the line of posterity to the present, and even to the future generation. A diseased father and mother can only give birth to a child void of his rightful heritage; therefore most Indian babies are handicaped for this battle that they are supposed to fight side by side with their more fortunate brothers.

The initial step in all baby culture is practically the same whether the baby be Indian or white. Under unfavorable conditions in either case the same difficulties arise, consequently we must solve the better baby problem in exactly the same way in either case.

Since the same laws of heritage rule the universe we must strive to make better mothers before we can have better babies.

In the year 1911 we awoke to the serious realization that far too many lives of the helpless Yuma Indian babies intrusted to our care were needlessly sacrificed, yet in a measure our hands were tied because of the fact these deaths were due to a number of causes—first, and in my opinion the most devasting, was the aboriginal traditions and primitive practices of the Indian medicine man. While we believe that the Indian medicine man was sincere in his purpose, this fact made his practice no less intolerable or no less a menace to those who were striving to bring the Yuma Indian from under his influence. However, it is not an easy matter to undo a custom that has been practiced by a primitive people—without the slightest restriction—for untold centuries. Seeing the need

for immediate action soon after coming here, Superintendent Odle issued the following order:

Fort Yuma Indian School, Cal., May 12, 1913.

To whom it may concern:

The usual practices of so-called "medicine-men" are considered "Indian offenses." When the influence or practice of a so-called "medicine-man" operates as a hinderance to the civilization of the tribe, or that said "medicine-man" resorts to any artifice or device to keep the Indians under his influence, or shall use any of the arts of a conjurer to prevent the Indians from abandoning their heathenish rites and customs or promulgates any measures of an antiprogressive nature, he is liable to punishment under Regulations by a term of not less than ten days in the agency guardhouse or until such time as he shall produce satisfactory evidence that he will forever abandon all practices styled "Indian offenses" under this rule.

Reports on such practices should be made to this office, producing facts and proofs in connection therewith.

Respectfully, LOSON L. ODLE, *Superintendent.*

Realizing that this order was his Supertinendent's ultimatum, and the death-knell to his practice, the Yuma Indian medicine man gradually became submissive and, moreover, respectful of the order.

This order was followed by an insistent demand upon expectant mothers to come to the school hospital for confinement, with the result that four babies have been born there during the past year. Thus the problem of saving the Yuma Indian babies is gradually but surely being solved. Explanation other than the following statistical report for the past five years is unnecessary to show the wonderful progress made in health conditions:

	1911.	1912.	1913.	1914.	1915.
Births.....	17	14	22	26	28
Deaths.....	53	31	30	16	14

The girl and boy in school, the young woman and man out of school, and the reservation Indian woman and man have had this matter of heredity dinned into their ears, as well as all facts on sanitation and food, until the majority are taking a great interest in the future of their race—a future that should bring them back within the next century to be the same noble race of three centuries ago. But only by the combined effort of each school and agency employee can these things be accomplished.

INDIAN BABIES OF THE PONCA, OSAGE, AND OTHER WESTERN TRIBES

INDIAN BABIES FROM VARIOUS RESERVATIONS AND TRIBES

By N. R. Wallentine, M. D.
Agency Physician, San Carlos, Ariz.

(The following article is written with reference to the Apache Indians).

IN ATTEMPTING to write an article on "Better Indian Babies" I will say that it can all be expressed in two words, and those words are "Education" and "Hygiene."

We can never expect better babies among the Indians, in the true sense of the word, until they are educated. It may be asked why education is necessary to the health of babies. In the first place, uneducated Indian mothers do not realize the importance of fresh air and exercise for the baby, but, on the other hand, as soon as the baby is born it is strapped to a "carrier"and is allowed to remain in the "carrier" practically all the time until it is a year old and sometimes older. Now, in order for the baby to assimilate its food properly and develop as it should, it is of prime importance that its muscles be left free, so that they can exercise and thereby consume the necessary ingredients for their proper development. All of these things are done away with when the "carrier" is used. As soon as the baby is a few days old, it is taken out in the glaring hot sun with no shade for its eyes. This sets up an acute inflammation in the eyes, which, if allowed to continue results in a hyperplasia or thickening of the lids. All these things could be averted through education.

As regards nutrition, I will say that there are a great many Indian mothers who overfeed their babies through ignorance. This is a very serious affair in a hot climate as we have here, because it practically always sets up gastro-intestinal disturbances, thus resulting in an extremely high infant mortality. Again, Indian mothers who have not enough milk will substitute almost anything they have at hand, which is often something of an indigestible nature. This is as bad as the other extreme because it produces a condition of malnutrition, leaving the baby an easy victim for the dread disease, tuberculosis.

Another thing which would tend toward better babies would be a change in their housing conditions, as they now live in "teepees" which

are mere hovels, unlighted and unventilated, but which are not impervious to storms. If we could educate the Indians to the point where they would desire dwellings similar to those in use by the whites, it would do a great deal toward eradicating many diseases now prevalent among them.

We cannot expect much advance along the line of better Indian babies until the Indians themselves are well enough educated to see the virtue of our methods.

I would say, in conclusion, that through consistent and continuous cooperation a great deal could be accomplished, because the Indians are susceptible to new methods when they see the benefit of them. Our only hope for the future, in saving the Indian babies, is a system of education which will educate in the true sense of the word, and diligent cooperation on the part of all employees in the Indian Service.

By A. C. Freeman, M. D.
Cheyenne and Arapahoe Agency, Geary, Okla.

THERE is only one hope for perpetuating the Indian people, and that is to save and develop the babies and little children.

It is said that the early Greeks used to throw their new-born babe out into the snow sometimes, and if it stood the shock and lived it was cared for. With the Indian there has seemed to be the idea that if a child was to live it would live, and if it was to die it would die anyway.

Having been contract physician in this field (Cheyenne and Arapahoe Agency) four years, I want to give my experience in this line. And the thing that impressed itself upon me as of first importance, was, and still is, to instill into their minds the idea of personal, parental responsibility.

Not yet have the Indian mothers learned to dress the baby properly with regard to climatic conditions. Four years ago it was common to see

little tots with only a cotton slip on, bare legged, toddling over the ground summer and winter (the idea being not to dress them, but to partly hide their nakedness,) coughing, snuffling, sore-eyed, and dirty; and when I have been called to prescribe for it I was expected to assume sole charge and responsibility for it.

To teach the parents that the proper care of the child (clothing, cleanliness, good food, and giving of medicine as directed) was necessary to its life and health, and that they, individually, were responsible for these things, and so for its life, was the first, and to some extent the present, task. Some rebelled against it angrily, thinking that since the Government had charge of them and theirs, the Government doctor must also do all things for them.

But gradually, little by little, there has come great improvement along this line. The little ones are being better cared for, better clothed, and more attention paid to giving them good food; though there is still too much ignorance as to what is best, and like some white folks the baby is given whatever it asks for, or seems to ask for; and when a doctor is called there is more carelessness about giving the medicines.

As a result of all this teaching there has been a very perceptible improvement in general health, and a decided lowering of the death rate, as the following statistics show:

During the first two years in this field there were	births..	29
And of children under five years of age there were	deaths..	19
During the third year there were	births..	12
During the third year under five years there were	deaths..	8
During the last (fourth) year there were	births..	12
During the last (fourth) year, there were	deaths..	6

One of the last was killed by a kick from a horse, and one died from result of spina-bifida, and one from inherited syphilis.

We have thus an increasingly hopeful outlook for the babies, and so for the Indians as a people.

By M. J. Freeman, Field Matron.

AN EFFORT has been made in our field to "save the babies." When I first came here I found it almost impossible to get them to call a physician for the baby, when often they would do so for an older person, saying that white man's medicine was too strong for an infant. They have learned differently, and I urge them to send as soon as they find baby is not well—not to wait until it may be too late.

Our babies are better bathed and dressed, with proper clothing for summer and winter, and we insist on them not taking the little ones out in bad weather.

Home and sanitary conditions are improved, the women prepare a better variety of food, using more fruit and vegetables.

Of the eight deaths under two years of age during the year just closed, all were more or less weak from birth, and two had artificial food.

We feel encouraged in the work and well repaid for the effort made.

By Fred L. McDaniel, M. D.
Physician, Pueblo Bonito School and Agency, N. Mex.

THE question which is brought up by the above title is an all-important one of a very vital problem in the study of the Indian people. The infant mortality among the Indians is exceedingly high and up to the present time no adequate methods have been brought forward to lower this mortality. It is probable that this high infant mortality results in the weeding out of the unfit and the survival of the fittest; still there are born large numbers of Indian babies who because of improper care of the infants themselves after birth, or of the mothers before and during childbirth, have died an untimely death. It is for these unfortunate babies that I make my appeal—these babies brought into the world helpless and entirely dependent upon others for their welfare, and who die from lack of adequate care or as a result of ignorant and superstitious methods of handling a newborn baby.

It is quite true that the majority of Indian babies who live and thrive do so in spite of the treatment which they usually receive at birth and immediately after. Very few mothers desire or get any medical attention whatever during their confinement, relying upon old women who take the place of midwives. It is a puzzle to any scientific medical man how so many of these women and babies survive the ordeals they are subjected to at this critical time; however after generations and generations of such methods it is possible that the Indian women have developed an immunity which protects them from the results of infection and

ignorant handling. Perhaps it is true, as we have referred to above, that among the Indian babies we have demonstrated the survival of the fittest. However, those who survive have to run the gantlet of diseases which results from lack of care and attention. They may develop scurvy or rickets, or become infected by some older member of the family suffering from tuberculosis, living in the same room, and observing no sanitary precautions, and die early of pulmonary tuberculosis; or develop a case of Pott's disease and go through life a wretched hunchback and cripple; all this because the great majority of the older Indians have not the slightest knowledge of sanitation nor sanitary precautions which must be observed if any people wish to live together in health and comfort.

We now come to the answer to the question, "How can we save the Indian babies?" The one great answer to this is, of course, *education*—education of the older Indians along the lines of health and sanitation, and the teaching of the care of children to the older girls in our Indian schools. We should have more field matrons who should visit the Indians in their homes, and with the aid of an interpreter or otherwise teach them the gospel of sanitation and care of the young. The physician should go out and at convenient places get together as many Indian families as possible and make plain, non-technical, and interesting talks to them and endeavor to make them understand that every baby born is a valuable asset to the tribe and that the utmost care should be taken to preserve its life and health; and he should teach them in the simplest terms the care of the infant, both at birth and thereafter, until the baby is able to take care of himself. We should teach them to keep the baby scrupulously clean, to feed it properly, and protect it carefully from disease. They should be taught that a baby is not made healthier and stronger by being made to endure hardships and lack of careful attention, but he is weakened thereby and made an easy victim to any infection which may come along.

Along with this propaganda of education we will need more hospitals, especially maternity hospitals. On each reservation there should be maternity hospitals, either alone or in connection with general hospitals, situated at convenient points where all Indian women might come during their confinement and receive scientific medical attention and instructions in the post-natal care of their infants. Also in connection with these hospitals there should be a small nurses' training school to which the older Indian girls from the nearest schools might go and receive a course of practical training which would enable them to go out into the homes of those women who did not receive hospital attention and handle the case in an efficient and expert manner. These young women would be materially useful in the sanitary propaganda, as they would know

better how to reach the old Indians and how to impart the knowledge which they had gained at the hospital.

It will be largely by these methods—the education of the Indians themselves in the care of their infants, and sufficient maternity hospitals on the reservation to accomodate all confinment cases, and the training of young women from our Indian schools in the conduct of an obstetrical case and the care of an infant—that we will be able to reduce the exceedingly high infant mortality among the Indians.

All this will take time, but the saving of the Indian babies is one of the most important problems dealing with the welfare of the Indian today. We are preaching the conservation of human life, for a human life even though an infant in arms is a valuable thing. These babies can be saved, and we should make every effort to bring about a condition of affairs where we will be able to stop this enormous loss of our Indian babies.

By Roland R. Cross, M. D.
Agency Physician, Pine Ridge Agency, S. Dak.

WE AS physicians in the Indian Service know from experience that the death rate among Indian children is very high. I have come to the conclusion that two-thirds of the infants who die on this reservation under one year of age die of gastro-intestinal trouble. The question naturally arises, what is the cause, prevention and treatment of this disease? The causes are: first, permitting the baby to nurse too frequently; second, bottle feeding, uncleanliness. Prevention: Do not allow the baby to nurse so often—every two hours until three months old, then every three hours. Mothers should establish the above rule and not vary from it. Do not start the baby on bottle feeding except upon the advice of a competent physician. Keep the baby clean. Bathe the baby once a day. Do not allow the baby to wear a soiled napkin. Give the baby a drink every four hours of *luke warm water*, previously boiled. Don't forget to give the baby a drink. *Use a medicine dropper.*

Treatment: Furnish the physician with sufficient castor oil to give each mother a bottle and when given instruct her to give the baby a teaspoonful when she first notices its illness. I know of no better household remedy than castor oil. It is a safe, mild, and speedy cathartic for children, antiseptic to the inflamed mucous lining of the stomach and intestines. Physiologically speaking, castor oil is non-irritant until it reaches the duodenum, where it is decomposed by the pancreatic juice, setting free the ricinoleic acid which produces evacuations. It stimulates the intestinal glands and muscular coat. In one to two teaspoonful doses it produces an evacuation of the bowel in from four to six hours without pain or tenesmus, followed by a sedative effect upon the intestines. I believe if this simple preparation was placed in the hands of all Indian mothers with the proper instructions that many deaths among infants could be prevented.

By Christina W. Paulding,
Field Matron, Nez Perce Reservation, Idaho.

IN THE cemeteries and private burying places of the Nez Perce Indians are rows of little graves.

Some of the old women tell us that they have had many children, but all are dead. Other women have saved part of their children. In most cases, those children who died were little babies. The mothers did not know how to care for them properly. The doctors were too far away to be reached, and there was no one else to teach the mothers.

This mortality continues to a great extent among the children of the younger women—those who have been trained in the schools, and who can have the help of a doctor. But again, it is ignorance of the right way to care for the babies that helps to fill the little graves. Coupled with this ignorance is unbelief in what the mothers read, or are told, in regard to treatment different from that which they are accustomed to give their babies. They hold the customs of their mothers and grandmothers. Because all of the Indian babies they have known have been

kept close and tight on a "baby board," they keep their own that way. There is no restriction placed on the babies' diet, and there is no regularity about their sleeping time. And many other things are done just as they were in the old days.

How can these conditions be overcome? How can the babies be saved?

The Indian girls should be trained along these lines in the schools, as the white girls are being trained in many of our city schools, by object lessons, with real babies. The women who are already mothers must be reached and taught how to feed and clothe their children. They must be taught the necessity of fresh air for their lungs and bodies. They must be shown how to keep the children clean and regular in their habits. They must understand that they cannot allow symptoms of any sickness to go unheeded, and that to try to keep the little ones well is of the first importance. They must be made to believe that good care and good judgment and firmness are necessary in order to have strong, well babies. Their ambition and pride must be aroused so that they will desire to learn and practice the best ways of caring for them.

Most of the teaching of the mothers must be done in the homes. It cannot all be taught in one lesson, but must be given a little at a time as the need and the opportunity occurs.

By Mrs. M. E. Brown, Field Matron.

AS FIELD matron for the Santa Ana and Sandia Pueblos, I find many things to contend with when trying to arouse an interest in a "Better Babies" movement. Not many of the women of these pueblos have had the advantages of school training and very few speak the English language. They are progressing very slowly toward more cleanly ways of living. Naturally an Indian mother feels that she knows better than an outsider about what care should be given her child.

As a rule, these Indian mothers would make no preparation in the way of clothing for the expectant baby unless it be

swaddling clothes—colored at that. Yet when the idea of a layette is presented to the mother, she gladly does what she can afford to do in making one that is simple, inexpensive, and comfortable. Any suitable government material is also used when desired. To teach an Indian mother to use *white* clothing *only* which comes in contact with her child's body and to be clean and *sanitary* in the laundrying of the same is indeed a step forward toward "Saving the Babies."

Ventilation is rather a difficult subject to teach in a home boasting perhaps of only one or two small windows made to admit light only and a door about two sizes too small for comfortable entrance and exit. However, by winning the friendship of the "men-folks" of the family, those windows, or *that* window, can be made to admit *pure air* and the baby's swinging cradle can be hung in some corner where it will be out of the draught.

Another thing of value to induce an Indian mother to do is to nurse her child at regular intervals of time. According to her method of rearing the child, it is nursed whenever it manifests the least sign of restlessness. Then it is continually being carried around on its mother's back, or its father's or a brother's or sister's, no matter how young the latter may be. Just to let the child lie in a state of contentment when awake seems like base neglect to her. Yet she will realize in time that to cultivate a habit of *restfulness* in her child makes it stronger mentally and physically.

Indians are fatalists in their ideas about contagious diseases and the uneducated ones will do little to assist in maintaining a quarantine. One woman whose child, Candelario Sevariano, had infantile paralysis told me that the child stood near a whirlwind and inhaled some of the dust and as a result it was unable to walk and that God intended it to be so. However, the child was supplied with warm clothing, nourishing food and in time he fully recovered. The Indian Department furnishes plenty of malted milk and through the instrumentality of Dr. Day we have received liberal samples of Nestle's and Eskay's Food. Such nourishment helped little Candelario to regain his strength.

Mosquito netting is also furnished and the women now ask for it to spread over their children when asleep, showing that they feel that flies are not only annoying but a menace to health. Not a few of the men of the Pueblos have provided their homes with window screens and door screens and are paying more attention to periodical cleaning up of corrals, realizing that cleaner surroundings results in cleaner homes and—better children.

Frequent bathing of the children, and especially *daily* bathing of the face and hands, is a subject that needs constant reiteration. Towels and soap are furnished for the homes and individual towels for *diseased* members of the family if there isn't a sufficient supply of towels for all.

From a field matron's view-point, the domestic science training which an Indian girl is given in the government boarding schools is the *most essential* part of her training and I hope the time is not far away when in such domestic science courses will be included a course of special training in motherhood for the young women students. Such a course is offered in the Kansas Agricultural College and described in a November number of The Country Gentleman.

The saving of babies wouldn't be such a problem if such a training were given that could be adapted to Indian home life.

By Henry R. Wheeler,
Agency Physician, Fort Hall, Idaho.

THERE are many kinds of conservation now before the public eye, but no one of them is so important or concerns us so much as the preservation of infant lives. The subject naturally invites our most thoughtful consideration as to the most practical methods by which to obtain the best results.

We have reason to believe that the Indian babies would be as healthy as the white babies, if they had the same care and surroundings as that usually adopted for the infant in the white family. It is known that among the families of the mixed-bloods and some of the full-bloods, where better methods of living have been adopted for the care of the young, infectious diseases have lessened and infant mortality has decreased. This statement is proven by the fact that in these families recent statistics show an increase in their population.

In some localities, where a small number of the full-bloods are yet living in a primitive manner, a small tribal decline may be noted. However, this is becoming less each year and the signs of the times indicate that in a few more years the sanitary and hygienic campaign now in progress for the preservation of infant life will bring all Indian tribes up to a state of increase.

From medical literature we learn that in the large cities one infant out of every four dies before reaching the age of five years. Investigators,

in search of the cause leading to infant mortality, believe that the high death rate is partly due to the lack of useful information on the part of mothers concerning the proper care of infants. We admit that no influence for well-being of the family is of so much importance as the widespread dissemination of information pertaining to the management of the nursery. Every female, possible to become a mother or have the care of a nursery for others, should be educated in that line of conduct which contributes to growth and development, prevent infantile diseases, or hastens recovery from illness. Indifference and ignorance are the parents of failure, and there can be no intelligent procedure without a proper understanding and special information to serve as a safe guide. Herein lies one of the fundamental principles to be recognized in all human endeavor to mitigate infant mortality. In proportion as the population becomes better informed upon this subject, in that proportion may we expect better results to take place, other things being equal.

In harmony with the governmental policy of Indian education, a concerted and intensified effort is being made for the betterment of sanitation in Indian homes, the prevention of infectious diseases, and the preservation of infant life. The recognition of the fact that special training of Indian pupils along these lines is essential in developing their ability to act on their own initiative has led to a more thorough and systematic teaching of nursing and hygiene. Many training schools now have hospitals under the management of trained nurses, where classes of Indian girls can have the benefit of practical training by object lesson, which is calculated to supplement their academic work of the school room and lecture hall. In localities where women from camp accept the benefits of the hospital during confinment, the advanced class in nursing can receive training that is thorough, practical, and comprehensive.

This activity is not limited to the school alone, for camp people are constantly receiving a contribution of useful information from various sources. The Indian families are in close touch with the superintendent, missionaries, doctors, field matrons, field nurses, and the returned students. Through united effort, the Indian mother is constantly gaining a better understanding of conditions which take life or create illness in the very young.

"Saving the Babies" is now the important subject of the hour. It is the password going down the line for every sentinel in sanitary work to observe. It remains for the field workers to see to it that a practical application is made of what is learned in order that indifference or real negligence in any quarter may not obscure or hinder progress. Better results are bound to come in time, for continual effort and the accumulation of knowledge serve to benefit not only one generation but

many generations to come. Cooperation and patient endeavor throughout a large field are just beginning to bring a favorable outlook. Evolution, in civic and sanitary affairs of Indian life, is probably taking place more rapidly at the present time than is believed by many living outside of the Service. In order to convince the most skeptical concerning infantile thrift, we would like to exhibit many of the fat and pretty Indian babies seen enjoying good health in families living out here in this part of Idaho. However, their mothers believe that their girls are yet too young to be sent so far away for exhibition, so we will have to be content with sending some pictures as proof of the goods. They were taken as they could be found about the camps during my practice, and the mother of each baby is a returned student of the Bannock and Shoshoni tribes.

By Mary Doyle,
Field Matron, San Xavier Reservation, Tucson, Ariz.

IT WOULD be a great victory gained if something could be done to save the lives of the babies. It is a great pity that so many of them are lost.

In appearance, most of them seem very healthy but in reality they are not. If they take cold, it is difficult for them to get well again. The reason, I think, is that for want of proper nourishment and care they have not the vitality nor strength to resist the disease.

I think, too, if the mothers had better care and proper nourishment before the birth of the baby they would be stronger and better able to care for and nurse the baby, but for lack of food, or food that has not the proper nourishment, they soon become very much weakened, cannot nurse them, hence condensed milk—and that not always the best—and unsuitable food is given; therefore the baby must suffer the consequences, either to die in infancy, or worse still, to live and grow up puny and weak both in mind and body and inefficient and unfitted for the battle of life.

Another thing, the mothers do not realize how harmful it is for them to begin their household duties or do washing a day or two after the birth of the baby. We are endeavoring to impress on them how important it is to take proper care of themselves and their babies.

During my visit about two weeks ago a little baby of one and a half years was breathing heavily and with difficulty. When asked if he were sick, the mother said that he just had a little cold, but on examination I found that it was on the verge of pneumonia. Castor oil was given and cough medicine every two hours and linament rubbed on chest and back of lungs and in a few days it was entirely well.

We find that malted milk is very good even in cases where the baby is very sick. In several instances where the baby would not take food of any kind malted milk was tried, and it proved to be a great benefit towards saving the baby.

The first years of life are very important. They are the foundation years, and just as the stability of a building must depend largely upon the skill and care with which its foundations are laid, so health and life depend in a large measure upon the years of babyhood and the care bestowed upon them.

Let us hope that in a short time we will have solved the problem of "Saving the Baby."

By L. Beily, M. D., Manderson, S. Dak.

THE mouth of the new-born should receive an occasional washing with a boric acid solution. This should be done very carefully and gently, as the floor or the roof of the mouth will be denuded and thus invite infection.

The teeth when present should be cleaned at least once a day. Neglect of the teeth will result in caries, foul breath, pyorrhoea.

It is advisable to bathe a new-born baby at least once a day, with an additional sponge bath after each bowel movement, in order to keep its buttocks and genitals clean. The temperature of the bath for the new-born should be

from 95 to 100 degrees, lowering the temperature of the bath 5 degrees from month to month until the temperature of 75 degrees is reached. This is a tepid bath, and it can be continued during summer and winter for the first year of life. The best way to determine the temperature of a bath is by a bath thermometer, otherwise water that may feel hot to a sensitive skin may not be as warm as we imagine. In case of necessity, a good way to determine the bath temperature is by placing the elbow in the water, and if it feels warm to the elbow, we have the nearest bath temperature.

Ordinary soap may act as an irritant and produce eczema. Medicated soaps are also to be avoided unless there is an indication for a specal soap in a skin disease. Castile soap is a bland soap and if used in moderation will do good.

The child's body should be thoroughly dried and powdered, especially in the folds of the skin, between the thighs, in the arm-pits, around the neck. Powder should be used very liberally, as a dry skin is less liable to develop an eczema or chafing.

Children should be comfortably clad; overheating of the body is to be avoided. The body should be well protected in winter, and very loose, light clothes should be worn in summer. In dressing an infant, due allowance must be made for perspiration and for normal exercise, namely, by permitting freedom of the limbs. Pressure is to be avoided, as this may impede the circulation. Displaced organs may result from very tight fitting bands.

The abdominal band should be worn at least three months, as this will prevent the formation of a umbilical hernia. Delicate infants and premature infants may require a supporting bandage much longer.

The infant should be given an abundance of fresh air and sunshine. If possible it should be kept in a room with a southern or southwestern exposure. It is advisable to remove the infant from the room in which it slept, and the windows opened top and bottom. After proper ventilation the windows are closed and the infant brought back.

An infant one month old should be taken out into the fresh air in summer. On rainy days, or when it snows, it is advisable to dress up the child with coat and cap as though it were to be taken into the street, and throw the windows open.

While nursing the infant the mother should always sit upright. A great many cases are on record where the mother or wet nurse have fallen asleep and smothered the infant. No infant should nurse longer than twenty minutes. If an infant nurses about thirty minutes, then it shows that the breast milk is deficient in quantity.

The infant should be nursed at regular intervals. Convenient hours for nursing are as follows:

(1) Seven nursings in 24 hours: 6 a.m., 9 a.m. 12 noon, 3 p.m., 6 p.m., at mother's bedtime, and once during the night.

(2) Five nursings in 24 hours: 6 a.m., 10 a.m., 2 p.m., 6 p.m., and 10 p.m. or later.

Cooled boiled water between feedings may be offered, especially during hot weather.

The proper time to wean a baby is at the end of the first year. It is dangerous to wean a young baby. Weaning should be done gradually by replacing one breast feeding at a time with a bottle feeding. It requires several weeks for weaning.

By Mrs. G. Kleimer,
Field Matron, Red Moon Agency, Hammon, Okla.

WHEN we see the Indian mother tenderly watching over and caring for her baby, we are convinced that she dearly loves it. Realizing this, we are anxious to assist her in every way to give it the proper care. We know that adhering to old costoms has kept her from doing the right and the best thing for her baby, and we must try to show her her mistakes.

Cleanliness is one of the first requisites in caring for a baby and keeping it well and happy. Where we consider a bath an absolute necessity, the method of wiping off the skin and applying powder is used by the Indian mother. She is afraid of using water and soap freely, as the baby might take cold. As long as the Indians lived in tepees there was reason for it, but since they are living in houses and can have a warm room there is no danger of taking cold.

Regularity in nursing goes hand in hand with cleanliness. The Indian baby does not cry so much from lack of food as it does from overfeeding. It is entirely the wrong way to nurse a baby every time it cries. The reasons for its crying should be investigated and looked after.

The body and limbs of a baby need freedom so they can be exercised at will, but the Indian baby-cradle does not permit this. The baby gets

overheated, and there is much danger of its taking cold when taken out of the cradle in a cool place. This is often the cause of pneumonia and other diseases, which threaten the life of the Indian baby. The Indian mother claims that the baby gets used to the cradle and does not sleep well without it. But it would be far better if it had never been used to it. After the baby has outgrown the cradle, it is often not properly clothed, especially in cold weather.

If the young Indian mother can be induced to adopt the better way in the care of her baby, much will be gained. Although we realize that it is hard for her to break away from the old customs of her mother and grandmother and take matters into her own hands, we know that the sooner she will do so the better chance her baby has to grow up to maturity.

By Martin R. Reiber, A. B., M. D., Oraibi, Ariz.

IN PRESENTING a paper on this difficult problem it is my purpose to include in a brief manner a short sketch of the living conditions of these Indians—because the life of the infant is inseparably connected with them—and to offer a few remedial suggestions.

The prenatal care of the infant among this tribe, like that of so many people not exactly of his kind, is a negligible quantity. When born, the child usually presents nevertheless a well-formed and well-nourished appearance.

Then its troubles begin. It is soon put through a series of stunts partly of a semi-religious nature, partly merely the result of long ancestral custom. These do not, as a rule, exert any beneficial influence upon its health.

The baby is put to the breast at extremely irregular intervals or whenever it cries lustily enough, and during the rest of the time is for some months kept tightly strapped to its portable cradle and effectually covered with a multitude of dirty rags and blankets, so that it rebreaths the same cubic foot of air for hours at a time.

Such a thing as the process of weaning cannot be said to exist. A child

INDIAN BABIES OF PUEBLO AND OTHER TRIBES

INDIAN BABIES OF VARIOUS WESTERN TRIBES

is frequently offered and seen to take the breast at a time when its mother has well passed the mid-period of another pregnancy.

The Hopi parent is likewise seldom seen to refuse a child anything it wants, especially in the form of eatables. Consequently, it has repeatedly been my experience to see infants scarcely past their first half-year of life offered the staple diet of every Hopi home, a diet for which it had not the necessary digestive apparatus.

The living quarters and conditions of life of this Indian are not such as would be conducive to the health of his infant, and consequently the death rate is extremely high. Like the entire family the infant reposes only on blankets or sheep-pelts on a bare, hard floor of clay. The house, consisting usually of one room, necessitates its occupancy by the entire family day and night; a door or window is seldom kept open even in the mildest weather; remnants of foodstuffs, despite the urgent requests of field matrons, often litter the floor; facilities for the disposal of garbage and excrementitious matter are deplorably inadequate, and moreover the Hopi frequently does not take kindly to any suggestions that might remedy the situation.

Vermin, flies, and other pests abound in the villages under my jurisdiction at appropriate seasons, and I have repeatedly seen the unprotected infant on such occasions literally covered with a swarm of troublesome flies while the mother, busy grinding corn, placidly watched the performance.

The water supply is inadequate, because it usually has to be carried a mile or more on the backs of the women or burros, and is often used for culinary and other purposes when alive with various larvæ and otherwise absolutely unfit for human consumption; but still the average Hopi refuses to come off the mesa top and establish suitable living quarters nearer to his source of water supply.

This lack of sufficient water in their homes is another reason why the youngest children especially usually present such an unkempt and filthy appearance, the water on hand being just sufficient for table use, a condition not conducive to the physical well-being of the infant.

Under such conditons it is not surprising that a baby should contract tuberculosis, trachoma, and many forms of gastro-intestinal disturbances rampant among this people, and that with their tribal conservatism and unwillingness to accept any medical assistance, either of a prophylactic, hygienic, or actual remedial nature, which does not conform to Hopi usage and custom, the death rate among their children should be very high indeed.

Remedial measures to be effective with this people must, in my opinion, not savor of coercion, but are probably best offered as a matter of ordinary routine work and carried out with infinite patience and

perserverance, slowly educating this Indian to see for himself the advantages of a different and more sanitary mode of existence.

As regards the infant specifically it would seem, as cow's milk is not obtainable, that it might be of advantage to place some form of preserved milk of quality and easily digestible cereal foods within easy reach of the parent for the use of his infant when its mother's breast-milk becomes inadequate or artifical feeding more advantageous or imperative. This does not mean that it should be distributed gratis indiscriminately, for such a favor would not be appreciated; for those who can afford it are encouraged and urged to obtain a supply. Many Indians at Oraibi are now buying such appropriate infant foods at the regular stores, but those who are positively unable to do so should have a supply distributed to them under the supervision of their respective field matron. Such provision as exists at present is totally inadequate for the existing demand, and necessitates the injudicious supplementary feeding of meat, corn, beans, peas, melons, and other indigestibles to infants absolutely unable in many instances to digest them.

Before a new dwelling be erected it should be made compulsory for the prospective builder to apply to the agency superintendent for a permit. The superintendent might then direct the nearest physician to inspect the intended location and pass on the sanitary condition of its surroundings. Every new dwelling ought to consist of at least two rooms, one to be used as a kitchen, etc., the other for sleeping quarters. Provisions should be made for adequate roofing and flooring to keep the house dry during the heavy rains, and each room should have a door and at least two windows, one opposite the other, to allow for sufficient ventilation and entrance of sunlight.

Doors, windows, beds, and bedding are probably a more primary necessity than sewing machines, other kinds of household furniture, and farming implements, and I know from experience that the bedding will usually be kept clean with the present laundry facilities if a little urging be resorted to.

These things can be issued for labor performed and will be appreciated by a certain number even now; also beds, performing the added function of keeping the people off the floor at night and providing a more suitable place to put the babies than an infected floor.

I think that this people could be persuaded to use suitable receptacles, if they were at hand or obtainable, for the disposal of their garbage and other refuse and waste, before its final burial or cremation, and every applicant for a building permit should be made also to show his plans for an efficiently protected individual outhouse for the use of his family, or at least promise to erect the same under proper supervision. This might in course of time do away with the present custom of using

any or every part of the outdoors for such a purpose, rob flies and vermin of their present excellent breeding place, and prevent indiscriminate soil or water pollution even after the Indian has been persuaded to erect his habitat nearer to his source of water supply, especially when the site of such premises is under the supervision of a competent physician-sanitarian.

By carrying out as effectually as possible the above sanitary improvements and bettering thereby the living conditions and the general health of the Indian population of this reservation, the present dangers to the health of the infant in particular will in all probability gradually disappear and the problem of saving the babies draw nearer its final solution.

By Tassie Mary Scott,
San Carlos Indian Agency, Ariz.

SAVING the babies among the Apaches means conscientious labor and patience on the part of the physicians, nurses, and field matrons. First, they have to combat the natural enemity of the Indians and inspire confidence, then help them to progress by instruction in sanitation and better home conditions.

The mortality among the babies here is high, due principally to the poor housing and lack of knowledge of the necessity of fresh air. During the summer months the conditions are not so bad, because the Indians live outdoors and little in the tepees, but as the cooler weather, rains, and chill winds come they live inside, cooking, eating, and sleeping in the same tepees, and allowing no ventilation, except as the family go in and out through the low entrance.

The mothers bundle the babies into the carriers, tie them, allowing no room for the movement of the babies' lower extremities (which is necessary for muscular development, and exercise), or for the proper expansion of the abdominal muscles, necessary in respiration. They leave them so for hours, generally with a heavy blanket, through which no air can pene-

trate, covering the whole carrier. In cold weather this covering is invariably found over the carrier and the child is kept warm by its own breath, and is breathing the same foul air over and over. The babies are kept in these carriers until they are far too old, sometimes until fourteen and fifteen months, at which age they should have full use of their little legs and walking, or at least trying to.

The mothers nurse the babies until they are sometimes two years old, and the mothers' milk has deteriorated in quality until it is of little nourishment; or perhaps to the other extreme, they are weaned too early and fed on solid foods which cannot be digested. The solution to this problem is the encouragement of mothers to wean their babies at a suitable age, and care taken as to the food chosen for substitution and instruction given in its preparation. If possible, the babies should be out of the carriers except when necessary for their conveyance, dressed suitably, and given plenty of fresh air.

Considering the living conditions the mothers keep the babies clean and need no criticism but deserve praise on that score. They should have encouragement to progress and part from the customs of their ancestors in the care of their children and take on the methods of the white people.

So let this be our motto: "Fresh air, proper feeding, and patience."

By I. Z. Stalberg, M. D.,
Agency Physician, Shoshone Agency, Wyo.

IN THE seventh and eighteenth centuries the expectation of human life lengthened at the rate of four years in every hundred, while in the nineteenth century it increased at the rate of nine years in every hundred—over twice as rapidly.

How different will be found the statistics among Indians than those mentioned above. I have not the exact figures at hand, but from six years' observation of Indians I believe I am safe in saying that one-half of the Indian children die before they reach the age of two years.

Why is this so? Upon whom fix the blame? Upon whom fix the responsibility of so large a mortality among Indian babies?

This matter becomes even more serious when we think that at least one-half of these deaths are preventable. Blame the Government if you will, blame the physicians, nurses, and field matrons, if you must; but nevertheless the greatest responsibility rest with the Indians themselves. But under the present conditions they are unable to meet these responsibilities.

Let us consider first of all the causes of this large infant mortality. They are chiefly—

1. Cholera infantum, or summer complaint.
2. Pneumonia, or lung fever.
3. Tuberculosis, or consumption.
4. Improper care during child-birth.

Considering the cholera infantum, we will find the following causitive factors for same:

Housing conditions.—To most of you who will read this the average home needs no description. A log house, with a dirt floor as a rule, and small windows which are stationary; the room is usually overheated, with no provision for ventilation whatever—no fresh air, no sunshine, no cleanliness, very little bathing, if any, and very little change in clothing. As a rule, the mother is either poorly or improperly fed, which of course has a great deal to do with the proper nourishment of the baby; and not very often does the mother pay a great deal of attention to her own hygiene, which is very necessary in the proper nourishment of the baby. At about the time when the baby reaches five or six months of age and the question is put to the mother as to how the baby is fed, the answer is not infrequently, "She eats." Patent medicines to make the baby sleep and keep it quiet also supply their share of harm.

The second cause of pneumonia is brought about also by the above named poor housing conditions. And in addition, by exposure. Let there be a fair, a feast, a ration, in fact any excuse whatever, and no matter how bad the weather, or how great the distance, the baby will be packed in the wagon and taken there.

Considering tuberculosis as a causitive factor, we find the following reasons:

The marriage of tuberculars is not restricted as it should be, and consequently a child born of such Indian parentage has not the vitality that a child born of normal parents. Then again, the poor housing conditions play their great part. As a rule, some one in the family is suffering from tuberculosis of some form. And even if some family should be free from this disease, it can be depended upon to have visitors

who are suffering from this disease, and they are quite sure to leave some traces of it behind them, as they pay little or no attention to the prevention of the spread of it.

The fourth and last cause of this infant mortality, while not as great as the others, still needs some consideration. Only on rare occasions is a physician called to attend the Indian mother during child-birth. Naturally, the old Indian woman who is usually the attendant in this condition cannot give the new-born the intelligent attention required. And, in a good many instances, lives are sacrificed in this matter.

The Remedy.

Yes, what is the remedy for all this? How can such a vast problem be solved?

We must resort to the different relief measures. An immediate and a future plan of action must be resorted to. The immediate plan shall consist of saving the babies which will be born in the near future and in the next two or three years.

Also we must commence right now to develop the system which will tend to save the most babies in the future.

What the Indian Office Can Do.

1. Let there be appointed a physician who shall be stationed either in Washington or some such central location as Denver, who will have for his duties nothing but the paying attention to the vital statistics of Indian reservations. Because of the system of obtaining land fo their new-born, an Indian registers his child at the agency office almost immediately. This information should at once be forwarded to the statistician named above. He in turn shall take the matter up with the agency physician, who shall either make personal visits to the new-born, or see to it that his nurses or field matrons shall make such visits on an average of once a month. The progress of the child should be communicated to this statistician, who shall advise whatever in his opinion is deemed necessary to be done for the welfare of the child.

In my opinion it is the only method by which strict observation can be had of all Indian babies.

2. Two nurses and two field matrons should be allowed each reservation for this work.

3. Circulars and pamphlets should be sent frequently to the physicians who shall see to it that they will reach the proper person. These circulars should contain all the knowledge that a mother would require in taking care of herself and her baby. These facts should be *taught* to the Indian mothers.

What the Indians Can Do.

1. The mother should keep herself in as good a physical condition as possible.

2. She should clean up both herself and her baby and her house, and also keep clean.

3. She should allow the baby plenty of fresh air and sunshine and bathing.

4. She should feed it regularly and should change its clothes regularly and often.

5. She should not use patent medicines.

All of the above can and should be done immediately.

What is the remedy for the future? This can be answered in one word, *schools*.

Surely the mode of life of the Indian does not prevent the teaching of sex hygiene in the Indian schools. In fact, I believe that Indian children are more fit to be taught sex hygiene than even white children are. A regular course in this subject should be introduced in the Indian schools at once. The entire subject bearing on motherhood and the care of babies should be taught all girls reaching the age of thirteen.

If the school children are not taught these subjects, and in addition cleanliness of their homes and prevention of disease in general, then the entire mission of the Indian school is a failure.

Little Mothers' League.

Outline of General Lectures to Be Given in Indian Schools.

GENERAL LECTURE.

The following outline is to serve as a basis for general lectures to be delivered in schools to all girls over twelve years of age. Girls under twelve years may be included if the matrons so desire, and mothers may be invited to these lectures.

It is not expected that the outline will be followed verbatim and each instructor should present the subject in accordance with the needs and character of the audience, making it as individual as possible.

The object to be kept in mind is to make the lecture forceful, practical, and interesting, in order to enlist the cooperation of the girls in the campaign against infant mortality.

OUTLINE.

1. In New York City in 1910 there were 16,212 deaths under one year of age. In 1911 there were 15,053 deaths under one year of age, a decrease of 1,159. This was due to the education of mothers in the proper methods of baby care, and shows what may be accomplished. Thirty-two per cent of these deaths occurred in the first month of life, and 54 per cent before the babies reached the age of three months. Therefore it is necessary to begin to care for the baby properly as soon as it is born, in order that it may have a chance to live.

One death out of every five at all ages is that of a baby under one year of age.

One death out of every three at all ages is that of a child under five years of age.

Sixty per cent of these deaths could be prevented if the babies could receive proper care and be fed properly.

During the summer months as many as fifty babies die in New York City every day. The summer is the most dangerous time for babies because they suffer from the heat much more than grown people do and because the milk used to feed bottle-fed babies is much more likely to spoil and cause illness.

WHAT CAN BE DONE TO KEEP A BABY WELL.

(a) *Important to know how to care for babies.*

Do not take anyone's advice about this matter except a doctor's. It is easier to keep a baby well than to cure it after it is once sick.

The feeding of babies under one year of age is of particular importance.

(b) *Babies should be breast-fed if possible.*

Only one breast-fed baby dies to ten babies who are fed in other ways.

Feed the baby regularly every two hours until three months old; then every three hours.

Too much feeding is worse than too little.

Do not feed the baby because it is fretful or cries.

Give the baby cooled, boiled water several times daily, particularly in hot weather.

If the baby cannot be nursed, it should be given only fresh, sweet cow's milk mixed with the proper amount of barley water.

The proper mixture of milk and barley water should be prescribed by the doctor.

Keep the milk on ice or in a cool place.

Taste it before each feeding. If it is soured, even in the slightest degree, do not use it.

Babies under six months should not be given anything but milk and water.

After six months of age the baby may have a little beef juice and orange juice.

Never give a baby less than one year old any solid food.

Bottles and nipples must be kept clean.

(c) *Care of bottles.*

As soon as empty wash with cold water.

Thoroughly cleanse with borax and hot water (one teaspoonful borax to one pint hot water).

Keep clean bottles upside down on shelf.

Boil bottles before filling them with milk for each feeding.

(d) *Care of nipples.*

Rinse with cold water, then wash with hot water after using.

Keep in the borax water between feedings.

Rinse in boiling water before using.

(e) *Remember, if a baby is taken sick with summer complaint, vomiting, or diarrhea, stop all milk at once. Give only cooled, boiled water and send for a doctor.*

(f) *Clothing.*

Babies feel heat more than grown persons. Dress the baby lightly, particularly in hot weather. Have the clothing loose.

In hot weather a muslin slip or gauze shirt is enough.

(g) *Bathing.*

Should have a tub bath every day.

In warm weather, two or four spongings, with cool water.

(h) *Fresh air.*

Every one needs plenty of fresh air.

Babies should have plenty.

In hot weather, keep baby in coolest room in house or apartment.

Have windows open day and night.

Keep baby out of doors as much as possible.

Avoid sun. When in the sun, protect the baby's head with broad hat or parasol.

(i) *Sleep and quiet.*

Babies need quiet.

Avoid excitement.

Healthy as well as sick ones need a great deal of sleep.

Let the baby sleep on a firm bed; never on feather pillows.

Keep baby's clothing and everything about it clean.

(j) *General care.*

Do not let the baby play on the floor unless a clean sheet is spread about for it to play on.

Do not let it put anything in its mouth.

Do not give it "baby comforters" or "pacifiers."

If babies are kept cool and clean and given only the proper food they will not have the diarrheal diseases which cause so many deaths.

LITTLE MOTHERS' LEAGUES.

Last summer 20,000 girls in the public schools volunteered to help save the babies and formed little mother's leagues. If this can be done in white schools, why can it not be done in Indian Schools?

The members of these leagues learned all about the methods to be used in the care of babies and did a great deal to help reduce the death rate.

If each girl who has a little brother or sister to take care of or knows of a baby who is not being cared for properly

would do her part to see that the simple rules for baby care were followed, there would be fewer deaths this summer.

The object of this lecture is to ask the girls in this school to form a Little Mothers League. Every girl who joins will be given a certificate of membership. After she attends four meetings she will be given an official badge. Meetings will be held every week throughout the summer and the members can learn all about how to keep babies well.

Joining the league means that a girl wishes to be helpful and have a part in the greatest service to humanity—life saving.

(Distribute pledge cards and have them signed. Give notice of time and place of first meeting.)

FIRST MEETING.

Organization:

1. Collect pledge cards.

2. Medical inspector and nurse to be respectively, honorary president and vice president.

3. Members to elect their own president and secretary.

4. The pledge cards to be given to the secretary, who is to keep them in careful order and record on each one dates of attendance.

5. Short talks by physicians on purposes of league, telling what subjects are to be taught, and how members may help.

6. Distribution of certificates.

Order of Business for All Meetings:

1. Calling of meeting to order by president.

2. Calling the roll by secretary.

3. Enrollment of new members.

4. General discussion on topics of previous lesson.

5. Ten-minute talk by physician or nurse on subject of lesson.

6. Demonstration by nurse of methods used in subject matter covered by lesson. (Note: 5 and 6 may be combined.)

7. Motion to adjourn.

Members Must be Encouraged to—

1. Keep records of daily efforts to keep babies well.

2. Perform each day some act of helpfulness.

3. Write essays on topics already studied.

LESSON I.—Growth and Development.

Weight:

Average weight of new born baby seven pounds.

Normal weight is doubled at the end of six months to fourteen pounds.

At the end of one year weighs three times as much as at birth.

Under or over weight does not mean necessarily that everything is wrong, if normal ratio of increase is maintained.

Loss of weight first few days of life. On tenth day baby should weigh as much as at birth. If the breast milk or artificial feeding is suited to baby's needs, gain will be continuous. If no gain, baby should be taken to doctor.

Baby should be weighed once each week.

Muscular Development:

At three months, baby is generally able to hold up its head; sits erect at six months, and stands with little support or alone at one year.

Do not urge baby to walk. The bones of the legs may be soft (sympton of rachitis) and bending of the bones of the legs, with permanent deformity, may result.

SPECIAL SENSES.

Sight:

In early life babies are very sensitive to light. Should be kept in a semi-dark room during first few weeks or, if taken out, should have eyes protected from strong light. Never let the sun shine directly into baby's eyes.

Hearing:

After the first few days, the baby's hearing is particularly acute. Loud or sudden noises startle it and if often repeated may cause it to become excited or lead to convulsions.

Speech:

Usually begins to talk at end of first year. By end of second year several words have been learned. Speech may be delayed but if the baby cannot talk at all at end of its second year it should be taken to a doctor.

Teeth:

The first teeth are 20 in number, ten each in the upper and lower jaw. They appear at about the following ages:

Central incisors	5 to 6 months
Lateral	7 to 8 months
First molars.....	12 to 16 months
Canines	14 to 16 months
Second molars	21 to 36 months

The lower set appears usually before the upper set.

Eruption of these teeth may cause the baby to be irritable. If it is sick and teething seems to be the cause, do not neglect matters but consult a doctor.

The first teeth must be taken care of. If they are lost too soon or decay, the jaw may become misshapen, and the second teeth come in crooked or decayed. (Explain how set is formed in jaw directly behind and in contact with first set. Accentuate the importance of care of the first set and explain how it may be done.)

WHAT TO NOTICE IN THE BABY.

Posture When Sleeping:

Quiet, limbs relaxed, sleep peaceful, no tossing about.

Respiration:

Regular, easy and quiet. Baby should breathe through the nose.

Skin:

Cool, slightly moist, and of a healthy pink color. Extremities warm.

Facial Expression:

Calm, peaceful. If the baby is suffering pain, the features will contract from time to time during sleep.

LESSON II.

Bathing and Value of Water:

Water needed internally and externally.

Internally:

Restlessness and peevishness often due to thirst. Babies feel heat and humidity more than adults do. Death is often due to heat prostration and exhaustion.

Give baby a teasponful of cool boiled water every hour. Wash out baby's mouth after each feeding. (Demonstrate method.)

Externally:

One or two tub baths daily in warm water.

(Explain and demonstrate method of giving tub bath. Water about 95 degrees. May be tested by mother placing elbow in water. Never use the hand for this purpose, as it is less sensitive to temperature of the water.

In summer give two or more sponge baths. (Explain and demonstrate methods of sponge bath.)

Reduces temperature of body and quiets restlessness.

Bran Baths:

For excoriated or delicate skin, particularly in summer. Good for heat rash.

Bags made of cheese cloth each containing about one pound or one pint of bran. Put bag in tub full of water, move it about and squeeze it until the water is milky white.

Mustard baths:

Only to be used if baby has a convulsion.

First Send for the Doctor.

Have water warmer than for regular bath (about 100 degrees.) Four tablespoonsful of mustard to 4 quarts of water. Do not leave baby in bath more than ten minutes.

After bathing and drying always dust skin with powder.

Powder for General Use:

Boric acid, one part.
Starch, four parts.

Powder for Excoriated Skin:

Zinc oxide, one part.
Starch, five parts.

LESSON III.

Most important. Without oxygen no growth or development. Must have fresh air day and night.

Indoors:

Give the baby the best room in the house. Have the windows open. Keep a mosquito netting over the baby during the summer. Keep the baby out of the hot kitchen.

Outdoors:

In summer the baby may be taken outdoors when it is a week old. In winter at the end of its first month if the weather is bright, dry and clear. The eyes and head must always be protected from the sun and wind. Do not take the baby out in storms or high winds. In good weather the baby should be out of doors the greater part of the day. Sleep in the open air is particularly valuable.

Keep the baby in the shade on hot days. Seek out the cool and shady spots.

Sleep and Quiet:

Normal baby sleeps greater part of time during first few weeks,—from 20 to 22 hours out of the 24. Up to six months it will sleep from 16 to 18 hours. From six months to one year of age the child should take a daily nap.

In infancy the sleep is light and the baby should be put to sleep at night in a quiet room with clean clothes, dry diapers and a satisfied appetite. By the fifth month the baby should sleep uninterruptedly from 10 p. m. without a feeding. Babies should always sleep alone.

A soap box or clothe basket makes a good bed. Fasten a barrel hoop over the bed at each end and cover with mosquito netting. (Demonstrate way of making such a crib and canopy.)

Hammock is a good bed for baby if *wide open mesh.* Place a firm, thin pillow in the hammock for the baby to lie on. Pin the hammock together over the baby (safety pins) and place mosquito netting over it.

Never have baby to sleep on soft feather pillows. Use thin firm pillows in crib (hair pillow if possible) and cover it with rubber sheeting or oilcloth. Have covering light in weight and not too warm. In summer little or no covering is required.

Keep the baby quiet.

Let it sleep alone.

Keep it cool in summer and warm in winter.

Always have clean bed clothes and nightgown.

LESSON IV.

Clothing and cleanliness:

Most babies are too warmly dressed, particularly in summer. Too much clothing interferes with the movements of the limbs, restricts respiration and causes the body to become overheated, thus lowering vitality and lessening resistance to disease, as well as predisposing to skin eruptions and making the child restless and uncomfortable.

Baby's clothing should always be clean.

Have clothes of thin, soft and light material (unstarched).

Avoid obstructing bands. Baby's limb should have freedom of motion.

Winter:

Indoors dress.—Flannel shirt, diaper, socks, abdominal binder of flannel for first three months.

Outdoors dress.—Hood, warm coat, mittens.

Summer:

Thin muslin slip, gauze shirt, diaper.

All clothes must be loose.

Demonstrate and explain different articles of dress with samples of each. Encourage girls to make these clothes if there is a baby in the family.

LESSON V.

First care of sick baby:

The baby is sick if it has—

Fever.

Vomiting.

Many bowel movements.

REPRESENTATIVE CHILDREN OF THE FLORIDA SEMINOLES

(These Indians are among the poorest and most neglected of any in the United States.)

INDIAN BABIES FROM VARIOUS RESERVATIONS AND TRIBES

Green bowel movements.
Curdy bowel movements.
Constipation.
Is cross and fretful.
Won't nurse or take the bottle.
Has a cough.

What to do:

Stop all food immediately.

Don't even nurse him. Give him two teaspoonfuls of castor oil.

Give him nothing to eat or drink but cool boiled water.

Give him a sponge bath; dress him in clean, fresh clothes and take him to the doctor.

Remember:

Stop all feeding: Give a dose of castor oil and go to the doctor.

Remember:

It is easier to keep the baby well than to cure him after he is sick.

LESSON VI.

Milk:

A mother's milk is the only natural food for a baby. Many more babies would live if they were breast fed. Mothers would save much trouble by nursing their babies for not only would the baby not be liable to have stomach or bowel trouble but there would not be the difficulty and cost of getting a proper substitute feeding.

If a mother is healthy, her milk contains just the right substances to nourish her baby, and the portion of these substances changes as the baby grows older and provides it with the proper food for its age.

If the mother cannot nurse the baby, the next best food is cow's milk.

Both human and cow's milk have the same ingredients, but they vary in amount and the milk that is suited to a calf is not suited to a human baby unless it is prepared by having other substances added to it. Changing cow's milk in this way is called "modification."

If cow's milk must be used, it is of greatest importance to see that it is absolutely pure. The milk sold from a can in grocery stores is often impure and likely to make the baby sick.

Condensed milk or patented foods should never be used for infant feeding if a supply of pure cow's milk can be obtained. These foods may make the baby fat, but they do not properly nourish the baby. (If the children seem able to comprehend, the different composition of human and cow's milk may be explained to them.)

The reaction of human milk is alkaline, while that of cow's milk is slightly acid.

To modify cow's milk so that it will be as nearly as possible like human milk, we—

1. Add water to reduce the proteids. This reduces the amount of other constitutents, so we—
2. Add cream to increase the fats.
3. Add milk sugar to increase the sugar.
4. Add limewater to increase the salts and to make the milk alkaline.

LESSON VII.

Size of baby's stomach:

Show chart and show why amount of food must be different at different ages.

A good rule is to give one ounce more at each feeding than the baby is months old up to six months, then as many ounces at each feeding as the baby is months old up to the time of weaning.

Regular feeding is important.

Irregular feeding and over feeding causes sickness.

Don'ts:

Don't give the baby sour milk—taste before each feeding.

Don't give the baby cold milk—test it by dropping a few drops on the wrist.

Don't give the baby any other food but milk and water.

Don't give the baby pickles, lolly pops, bacon, tea, coffee, or ice cream.

LESSON VIII.

Care of milk in the home:

Keep it Clean, Covered, and Cool (the three "C's)."

Every dish or utensil that comes into

contact with the milk must be perfectly clean.

If the milk gets warm it will become sour, and the germs in it that cause sickness multiply very rapidly.

Keep flies away from the milk as well as away from the baby. Flies carry filth and disease germs.

Care of bottles:

As soon as empty, wash with cold water.

Thoroughly cleanse with borax and hot water (one teaspoonful of borax to one pint hot water).

Keep clean bottles upside down on clean shelf.

Boil bottles before filling them with milk for each feeding.

Care of nipples:

After using, rinse in cold water, then wash with hot water.

Keep them in a tumbler full of borax water between feedings.

Before using, rinse in boiling water.

Show dishes to be used in modifying milk and explain use of each.

In the home the following articles are needed:

One saucepan (for making barley water).

One strainer (for barley water).

One bowl for mixing.

One tablespoon.

One eight-ounce glass (common tumbler for measuring. (Two tablespoonfuls equals one ounce).

One funnel (pitcher may be used).

One double boiler (if possible).

LESSON VIII.

Home directions for milk modification:

Clean hands.

Clean table to work on.

All utensils scalded.

Outside of milk bottles washed with cold water before the cap is removed.

Make barley water first, if it is to be used.

After everything is ready, wash hands again.

All feedings for the day should be prepared at one time.

Demonstrate process:

1. Barley water:

Measure barley accurately according to formula; cream it in a little cold water first to avoid lumping.

2. Dissolve the milk sugar in water.

3. Add the sugar solution to the milk.

4. Add the barley water.

5. Add the lime water.

6. Fill the feeding bottle; cork them with cork or cotton.

7. Put bottles immediately in cool place.

8. Heat each bottle in a pan of hot water before giving it to the baby.

LESSON IX.

Demonstrate how to make (1) albumen water; (2) whey.

Have each child modify milk according to a simple formula.

Explain that the directions as to the proper formula for the baby must always be given by the doctor or nurse.

LESSON X.

Quiz on the subjects covered to date.

Have the members submit essays on baby care.

When Your Baby Is Sick

IF THE baby is sick, stop feeding it altogether. Give it water instead, and *see the doctor at once.* Do not let the neighbors tell you what to do. More babies are lost through delay in seeing the doctor and from continuing to feed them after they are are sick than from any other reason.

If the doctor orders *rice water* to be added to the milk, or given alone, it should be carefully prepared.

Rice water is prepared by using a tablespoonful of rice to a cup of water. Wash the rice in cold water until clean. It should cook three hours in a double boiler. Strain off the water and use. The rice which is left is good for the older children.

Fresh air is most important for the baby in summer. Keep it out in cool, shady places as much as possible. Keep the bedroom windows wide open at night.

Do not take the baby on long excursions for the day, bringing it home late at night.

Remember, regular feeding, sleep, fresh air, care of all foods, plenty of cool boiled water to drink, clean, dry clothes to wear, cool baths, *and doctor when the baby is sick,* will save the baby during the summer months.

Remember, upon the health and strength of the babies the glory and greatness of our Nation depend. The babies who in a few years will be men and women, what kind will they be? Healthy and strong, or narrow-chested, dependent? Are they to be leaders among men or the reverse?

Mothers! do you realize that the health, strength, and goodness of your boys and girls are almost entirely in your hands? If your babies are brought up properly, and from babyhood are taught the principles of health, and truth, and honor, it will make us a Nation of healthy, clean men and women, with clean homes and honest hearts.

THE INDIAN HAS demonstrated his humanity and his capacity for intellectual and moral progress amid conditions not always propitious, and I am eager to participate with all the favoring forces that contribute to his racial triumph, believing as I do that when he comes to himself as a factor in the modern world his achievements will enrich and brighten the civilization of his native land.

CATO SELLS
Commissioner of Indian Affairs